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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
DAGMARA ORTMANN, ET AL. : EXAMINER: NWAONICHA, C.O.  
SERIAL NO: 10/584,148 :  
FILED: JUNE 22, 2006 : GROUP ART UNIT: 1621  
FOR: METHOD FOR PRODUCING :  
TRIVALENT ORGANOPHOSPHORUS  
COMPOUNDS

REPLY BRIEF

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

The following reply brief is in reply to the Examiner's Answer dated September 29, 2008 (Answer).

The statement of the grounds of the rejection (Answer at 3-6) is identical to the statement in the Final Rejection, which has already been responded to in the Appeal Brief. The following is in reply to the "Response to Argument" (Answer at 6-11).

The Examiner continues to find that "the function of the basic ion exchange resin, like any other basic compound, is to capture or neutralize the HCl generated during the reaction, and this process technique is well-known to one of ordinary skill in chemistry. Both prior art cited employed an amine-resin during the reaction and not after the reaction as argued by Appellants" (Answer at 7).

In reply, Applicants have already explained the difference between a basic compound and a basic ion exchange resin, especially when the reaction is carried out under acidic reaction conditions.

The Examiner relies on Wikipedia to support a statement about strongly basic and weakly basic ion exchange resins (Answer at 8).

In reply, such reliance at this stage of the prosecution is improper, and Wikipedia should not be considered by the Board. Nor is the relevance of this citation apparent.

In response to Applicants' argument that neither Gatrone et al nor Martin discloses the condensation reaction of the particular phosphorous compounds of the present claims, the Examiner finds that "the starting materials, the product of the reaction and the reaction medium are immaterial in this situation" (Answer at 8).

In reply, of course these limitations are material, and may not be ignored. See, for example, *In re Ochiai*, 71 F.3d 1565, 37 USPQ2d 1127 (Fed. Cir. 1995) and *In re Brouwer*, 77 F.3d 422, 37 USPQ2d 1663 (Fed. Cir. 1996).

The Examiner finds that "the order of addition of the basic compound to the reaction medium does not alter its function as HCl acceptor" (Answer at 8).

In reply, the Examiner's point is not understood. If the Examiner's point is that it does not matter whether the condensation reaction is carried out in the presence of the at least one basic ion exchange resin, as required by the present claims, or the basic ion exchange resin is added after the reaction, this "order of addition" is pertinent, because a disclosure of addition after the reaction does not suggest presence during the reaction.

In response to Applicants' argument that in the presently-claimed condensation reaction, basic reaction conditions and the presence of basic compounds would be highly undesirable, the Examiner finds that it is "not persuasive because basic ion exchange resin is a **strongly basic** or **weakly basic** compound" (emphasis by the Examiner) (Answer at 9).

The Examiner then goes on to state the role or function of the base and what may effect the reaction (Answer at 9).

In reply, the Examiner has presented no facts to support these findings, which findings are, in essence, Examiner testimony.

The Examiner finds that “[a]cidic reaction condition is not maintained in the reaction medium as argued by Appellants’ [sic] because the reaction medium is neutralized by the basic ion exchange resin or basic compound” (Answer at 10).

In reply, the Examiner’s finding, without any evidence in support, is clearly erroneous. Applicants have already explained in the Appeal Brief that the nature of the reactants indicates that reaction conditions are inherently acidic.

The Examiner finds that Applicants have not demonstrated unexpected results in the use of a basic ion exchange resin (Answer at 10).

In reply, a *prima facie* case of obviousness has not been made out. Applicants were under no burden to demonstrate unexpected results, although, as Applicants have argued, the fact that a base is not needed to split off the acid is an astonishing finding herein.

The Examiner finds that “all the claimed elements were known in the prior arts and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention” (Answer at 11).

In reply, 35 U.S.C. § 103 requires that findings be made to support a holding that the differences between the subject matter to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time of the invention. The Examiner’s finding is inconsistent with these statutory requirements.

Regarding Applicants’ separate patentability argument for Claim 5, the Examiner finds that “simply reversing the order of steps in a multi-step process is not a patentable

modification absent unexpected or unobvious results. *Ex parte Rubin*, 128 USPQ 440 (POBA 1959)" (Answer at 11).

In reply, since the applied prior art does not even disclose the fundamental condensation reaction of the present claims, cases like *Rubin* are inapposite.

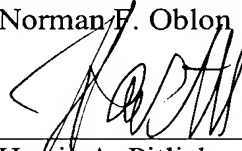
With regard to Applicants' separate patentability argument for Claim 13, the Examiner finds that the range recited therein "encompasses the standard size range of Amberlyst A26" disclosed by Gatrone et al (Answer at 11).

In reply, the issue is whether it would have been obvious to use an ion exchanger having the size limitations of this claim in the particular condensation reaction of the claims. As discussed above, Gatrone et al neither discloses nor suggests such a reaction.

For all the above reasons, Applicants respectfully submit that the rejection should be REVERSED.

Respectfully submitted,

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